

Revised 08/05

CORRES. CONTROL  
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Department of Energy

DUE DATE 10/04/05

ACTION

Deck, C  
Lindsay, D

# Memorandum

CORRESPONDENCE  
CONTROL

Rocky Flats Project Office

AUG 23 2005

DIST.	LTR	ENC
BERARDINI, J.H.	X	X
BOGNAR, E.S.	X	X
BROOKS, L.	X	X

HQCPM:DAH:05-00536

CROCKETT, G.A.	X	X
DECK, C.A.	X	X
DEGENHART, K.R.	X	X
FERRERA, D.W.		
GIACOMINI, J.J.		
GILPIN, H.	X	X
LINDSAY, D.C.	X	X
LONG, J.W.		
NESTA, S.		
SHELTON, D.C.		
TUOR, N.R.	X	X
WARD, D.		
WIEMELT, K.		
ZAHM, C.	X	X

Rocky Flats Project Office Assessment of the Rocky Flats Environmental Technology Site's Administrative Record

Carol Deck  
Corporate Counsel  
Kaiser-Hill Company, LLC

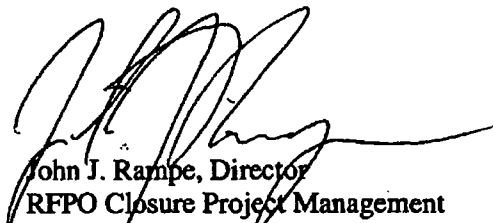
Beach, B.	X	X
Plappert, C.	X	X
Snyder, D.	X	X
Smart, K.	X	X

The Rocky Flats Project Office (RFPO) recently completed an assessment of the Rocky Flats Environmental Technology Site's (Site) Comprehensive Environmental Response, Compensation, and Liability Administrative Record. The draft assessment report was shared with the Kaiser-Hill Company, LLC (K-H) for factual accuracy review, and K-H comments have been addressed in the final report (attached). The assessment report includes four findings that require corrective actions. The first finding (RFPO-05-0001) will be addressed by the RFPO, the remaining three findings (RFPO-05-0002, 0003, and 0004) require corrective action plans from K-H. Please review the attached assessment report and provide corrective action plans to RFPO within 30 days of the date of this memorandum.

The K-H Team provided excellent support to the RFPO assessment team during Site visits and document reviews. I would like to thank you for your patience and cooperation during this assessment.

If you have any questions regarding this response please call me at extension 6246 or Dave Hicks at extension 3122.

COR. CONTROL	X	X
ADMIN. RECORD	X	X

  
John J. Rampe, Director  
RFPO Closure Project Management

Reviewed for Addressee  
Corres. Control RFP

Attachment

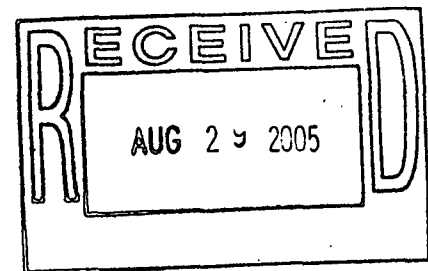
8/25/05  
Date By

Ref. Ltr. #

cc w/Att.:  
R. Birk, HQCPM, RFPO  
D. Hicks, HQCPM, RFPO  
L. Xuan, RFCPM, RFPO  
J. Tack, GJO, DOE  
L. Brooks, K-H

DOE ORDER #

NONE



ADMIN RECORD

SW-A-005121

# **Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report**

## **1. Assessment Number:**

RFPO-05-0005

## **2. Date:**

Data collection, including interviews, walk-downs, and document reviews, occurred from July 5, 2005 – August 1, 2005.

## **3. Introduction:**

The Rocky Flats Closure Project is nearing physical completion. After physical completion the U.S. Department of Energy (DOE) Rocky Flats Project Office (RFPO) must complete regulatory closure with the Colorado Department of Public Health & Environment (CDPHE) and the Environmental Protection Agency (EPA). The Rocky Flats Environmental Technology Site's (Site) Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Administrative Record (AR) is the primary documentation used to demonstrate compliance with CERCLA requirements for 1) evaluation and selection of response actions, and 2) public participation in review of proposed actions prior to selection of an action. The RFPO must ensure that the AR is adequate to support regulatory closure prior to the declaration of physical completion by the Site contractor. The critical site documents that constitute the CERCLA AR will also provide the DOE Office of Legacy Management with the primary baseline of information needed to support long-term stewardship of the Rocky Flats Site.

This assessment evaluates the RFETS CERCLA AR compliance with the following requirements:

- CERCLA [Title 42 *United States Code* (U.S.C.) Section 9613 and Title 40 *Code of Federal Regulations* Parts 300.800-825]
- Final Rocky Flats Cleanup Agreement (RFCA)
- U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response (OSWER) Directive No. 9833.3A-1, *Final Guidance on Administrative Records for Selecting CERCLA Response Actions*
- RFETS Site Procedure 1-F78-ER-ARP.001; Revision 2, "CERCLA Administrative Record Program"

The assessment team reviewed a sampling of AR decision documents as identified in RFCA Attachment 12. (Attachment 1 of this report is a table that identifies which documents were originally selected for review.) The sampling plan was not statistically based, but rather focused on reviewing a cross-section of decision documents (and other supporting documentation) that reflected 1) the wide variety of decision documents

# **Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report**

supporting the Site cleanup, 2) the chronology of decision documents, and 3) major transitions throughout Site history (e.g., contractor changes, DOE re-organizations, regulatory changes, etc.). The sampling strategy identified some documents for a "horizontal" review to verify that the basic AR requirements were satisfied; while other documents were identified for a detailed "vertical" review ensuring that the individual documents satisfied the more detailed assessment plan criteria and objectives. The U.S. Environmental Protection Agency participated in the assessment in an advisory role assisting the RFPO with AR requirements and best practices. The data collection phase was suspended on August 1, 2005 when the assessment team determined that sufficient documentation had been reviewed to support the team's findings and observations. The assessment team member's individual reports are included as backup information (Attachments 2, 3, & 4) to this Assessment Report. The Findings and Observations identified in the individual reports have been rolled-up into the main report, therefore only those findings identified in the main report and assigned a finding number (i.e., RFPO-05-0005-F-1, F-2, F-3, & F-4) require corrective actions.

This assessment does not reach any statistical conclusions but merely identifies discrepancies (findings and observations) discovered from the "horizontal" and "vertical" reviews and makes recommendations based on these conclusions. The assessment included thorough reviews of the AR hard copy and the AR database in accordance with Attachment 1. The electronic version of the AR (LibertyNet) was used minimally, as recommended by Kaiser Hill Company L.L.C. (K-H) in an e-mail from C. Deck e-mail dated July 14, 2005. K-H has acknowledged that the electronic version of the AR is not "user-friendly" and is in the process of correcting this deficiency.

#### **4. Conclusion:**

From at least 1990 to present, both EG&G and K-H have had procedures and processes in place to capture documents for the Administrative Record. These processes and procedures remained in place through contract and personnel transitions and were generally quite effective.

There is an Administrative Record Program being implemented at the Rocky Flats Environmental Technology Site, however, the Site should make some improvements to demonstrate more clearly that the program complies with the CERCLA requirements for evaluation and selection of the response actions, and to facilitate and document public participation in review of the proposed actions.

It is strongly recommended that the following specific areas of concern be evaluated by RFPO and K-H management:

- A limited number of AR documents could not be found.

# **Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report**

- Not all AR documents are included in the hard copy AR files. Some documents are on compact discs, floppy discs, or other forms of media. These documents could become irretrievable as technologies become obsolete.
- The electronic search capability of the AR Index is ineffective.
- The electronic version of the AR is not user-friendly and may not satisfy the requirements for an "accessible and retrievable" publicly available AR.
- Each individual decision document should have an AR index listing all AR documents supporting that decision (e.g., Operable Units, Buildings, Industrial Area, Buffer Zone, etc.)
- It is unclear how K-H will document to the DOE that the AR is complete and accurate once physical completion is declared and K-H provides RFPO with the completed AR for all decision documents supporting Site cleanup and closure.

These concerns have been addressed in more detail in the findings and observations that follow. The K-H team provided excellent support to the RFPO Assessment Team and greatly assisted the Team in obtaining documents for review and understanding the current status of the AR.

## **5. Findings: (Please see assessor attachments for additional details.)**

### **RFPO-05-0005-F-1**

**The RFPO did not clearly identify an Administrative Record Coordinator (ARC) for a period of approximately two years (~2002-2004).** Therefore, the RFPO oversight of the RFETS CERCLA Administrative Record Program (1-F78-ER-ARP.001 Rev.2) was limited during this time. (This concern is mitigated by the fact that the program was mature and individuals involved in the AR process were familiar with their responsibilities.) Specific concerns include: How did RFPO evaluate the K-H administration and maintenance of the AR system during this time? Did responsible RFPO staff understand AR requirement? Was training available to RFPO staff and support services contractors regarding AR requirements?

#### **Requirements:**

- RFETS CERCLA Administrative Record Program 1-F78-ER-ARP.001 Rev.2, effective 11/12/01
- Rocky Flats Cleanup Agreement, 7/16/96

# **Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report**

## **RFPO-05-0005-F-2**

**The electronic AR records are not "user friendly."** The system is ineffective in retrieving documents with either known titles or known dates and some specific documents could not be easily searched. They are filed in sequence of documents entered into the system. The file folders are coded with numbers and users have to know the index to search for the exact documents. The electronic version of the AR is now the publicly available version and must be accessible and readable. Also, after the Site is closed and all knowledgeable officials and support contractors from RFETS leave the Site, it will be hard for new personnel to retrieve specific documents electronically.

### **Requirements:**

- RFETS CERCLA Administrative Record Program 1-F78-ER-ARP.001 Rev.2, effective 11/12/01
- Rocky Flats Cleanup Agreement, 7/16/96

## **RFPO-05-0005-F-3**

**There were a number of individual AR deficiencies identified during the review.** The specific AR deficiencies should be corrected and the AR program should be evaluated to identify corrective actions to mitigate these deficiencies.

1. All of the file boxes examined from the Building 779 AR had files that were out of order; it appears that the files have been shuffled as a result of the reproduction process for the digital AR. It is unclear how K-H ensured that files removed from the AR were returned to the AR after reproduction.
2. An index of documents in the complete Administrative Record files did not accompany each update to the Administrative Record files. Distribution of the annual index update was not evident.
3. The OU-3-A-000491 database says "CAD ROD;" actually it is EPA comments on Draft CAD ROD and the transmittal letter is buried in the comments.
4. File OU-3-A-00054 contained the wrong title in the database.
5. In the Site AR Program procedure, Section 5.2, Submission of Potential CERCLA AR Documents, [4] requires that documents being submitted to the AR are unmarked, legible, and signed as applicable unless otherwise directed by the DOE ARC.
  - During this assessment, several documents in the CERCLA AR were of very poor reproduction quality (e.g., poor copying, canted copies, legibility, etc.). The quality issue was apparent for older legacy documents and the trend to include less than good quality documents continues to date.

# **Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report**

- Document OU 03-A-000523 is a copy with a sticky note attached, rendering the message illegible.
  - Several scanned graphs were illegible (e.g., OU 03-A-000568).
  - Some scanned memos were illegible (e.g., OU 03-A-000568). The original copy from the official record was also found to be illegible; however, no attempt was made to request for a better copy for the official file.
  - Document number A-OU0-000597 is a "marked-up" draft of comments provided on the Proposed 881- Hillside French Drain Project Final Biological Survey Report.
6. During the team's review of document number I101-A-000331, *Draft Closeout Report for IHSS Solar Evaporation Ponds*, it was noted that Appendix C of the document that was included in the report as a CD was not present. A cross-reference to the CD or a paper version of its contents should be included with the document in the AR. The migration and preservation of special mixed media in the AR is a concern to DOE. Because the retention of the record copy of the AR is 75 years or longer, Kaiser Hill should provide DOE with a plan for the migration and preservation of this valuable material.
7. Document number BZ-A-000737 is the final Interim Measure/Interim Remedial Action for IHSS Group 900-11 (903 Lip Area and Vicinity Operable Unit 1 881 Hillside). This document includes a reference to a Regulatory Contact Record, comment resolution meeting minutes dated December 18, 2003; however, this document was not found in the AR by the assessment team members.
8. Separate Index for each closed Operable Unit (OU) was not completed. There were 5 closed OUs, but the Indexes for all of them were not evident. The OU-3 AR index attachment transmitted by Gail Hill (OU03A 000527; April 8, 1997) could not be found. Two attachments that were located with the transmittal letter identified documents to be added to AR. Four of the identified documents to be added could not be located. The missing (OU-3) pieces of this particular correspondence are raised to the level of a Finding because RFETS intends to initiate the process of delisting OU-3 from the National Priorities List before delisting the remainder of RFETS.

## **Requirements:**

- RFETS CERCLA Administrative Record Program 1-F78-ER-ARP.001 Rev.2, effective 11/12/01
- DOE Office of Environmental Guidance DOE/EH-231-010/1291, November 1991

# **Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report**

## **RFPO-05-0005-F-4**

**The Site AR index does not list guidance documents, technical literature, or reference materials. These documents should be listed in the AR index in accordance with the following requirements.**

- A "Compendium of CERCLA Response Selection Guidance Documents" is not found as part of the administrative record. Guidance documents, or portions of guidance documents, that are considered or relied on in selecting a CERCLA response action need to be part of the administrative record file. The term "guidance" does not imply that only guidance documents are included. The documents may also be policies, memoranda, clarifications, case studies, manuals, handbooks, reports, and other documents used in the selection of the CERCLA response actions.
- Section II E.2, Technical Literature, indicates "Publicly available technical literature that was not generated for the site at issue (e.g., an engineering textbook), does not have to be located in the regional office or other central location or at or near the site. The document must be clearly referenced in the (CERCLA AR) index."
- Section 5.1, Identifying Potential CERCLA AR Documents, [4] requires that documents included in a decision document reference section must be included in the project-specific AR file unless otherwise excluded by Appendix 2.

On the basis of the review of the AR, the AR index, RFETS Site Procedure 1-F78-ER ARP.001, Revision 2, and conversations with Kaiser Hill staff, it does not appear that technical literature used in remedial decisions are referenced in the AR index. During this assessment, several documents that were identified as references in critical decision documents were not found in the AR file.

### **Requirements:**

- Selected Technical Guidance for Superfund Projects, OSWER Directive 9200.7-01
- Rocky Flats Cleanup Agreement, 7/16/96
- U.S. Environmental Protection Agency OSWER Directive 9833.3A-1, *Final Guidance on Administrative Records for Selecting CERCLA Response Actions*, dated December 3, 1990.

**Rocky Flats Environmental Technology Site  
CERCLA Administrative Record  
Assessment Report**

6. **Observations:** (Please see assessor attachments for additional details.)

**STRENGTHS**

**RFPO-05-0005-0-1**

AR procedures have been in place from at least 1990 to the present and during the transition from EG&G to KH contracts.

**RFPO-05-0005-0-2**

Procedures capture incoming and out-going correspondence and documents and appear to work well.

**RFPO-05-0005-0-3**

No interviewees could identify any gaps or weaknesses in procedures.

**RFPO-05-0005-0-4**

The OU-16 AR file appeared complete.

**RFPO-05-0005-0-5**

The B 779 AR file appeared complete.

**RFPO-05-0005-0-6**

Current support contractors are knowledgeable of the AR system and are very helpful. Currently, all AR records are stored in boxes in Building 061 while waiting to be archived at the Denver Federal Center. Hard copies could be retrieved quickly as long as the retrieving personnel have an index of those boxes. This box Index is understood to be temporary until the records are archived at Denver Federal Center.

**WEAKNESSES**

**RFPO-05-0005-0-7**

Strategic planning documents showing evolution of closure strategies and key audits (Independent Reviews) as the Site evolved from an operating facility to a closure mission with an end state were not part of AR. This is not a technical requirement, but RFPO believes the thought process should be captured. (RFPO will input a chronological list as a note to file.)

**RFPO-05-0005-0-8**

The Site chose to use the "Index" option instead of "File Structure" for the CERCLA Administrative Record. The "File Structure" system is more self-explanatory with an index of file structure such as: Site Identification, Removal Response, Remedial Investigation, Feasibility Study, Record of Decision, State Coordination, Enforcement, Health Assessments, Natural Resource Trustees, Public Participation, Technical Sources and Guidance Documents.



# Rocky Flats Environmental Technology Site CERCLA Administrative Record Assessment Report

## RFPO-05-0005-0-9

The RFETS Site Procedure 1-F78-ER-ARP.001, Revision 2, has not been revised since November 12, 2001, and should be reviewed and revised as appropriate. Because this document will include involvement by external groups after RFETS site closure, the RFPO ARC, the Office of Legacy Management, and the Office of Environmental Management Consolidated Business Center should ensure that the revised procedure addresses concerns identified during this assessment.

7. **Documents Reviewed:** See Attachment 1 and individual assessor attachments.

8. **Interviews:** See individual assessor attachments.


9. **Activities Observed:** See individual assessor attachments.

10. **Prepared by:**


  
David Alan Hicks; RFPO, Team Leader

8/22/2005  
Date

11. **Concurred with by Assessment Team:**

  
Lam Xuan, RFPO

8/22/05  
Date


  
Robert Birk, RFPO

8/22/05  
Date

  
Jeffrey Tack, Legacy Management, GJO

8/22/05  
Date

12. **Approved by:**

  
John J. Rampe; Director  
RFPO Closure Project Management

8-23-05  
Date

**Rocky Flats' Administrative Record**  
(based on RFCA Attachment 12)

	Sitewide Documents	Corrective Action Decision/Record Of Decision (CAD/ROD)	Decontamination & Decommissioning (D&D)	D&D Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocols (D&D RSOP)	Environmental Restoration Interim Measures/Interim Remedial Action (ER IM/IRA)	Environmental Restoration Proposed Action Memoranda (ER PAM)	Environmental Restoration RFCA Standard Operating Protocols (ER RSOP)	Environmental Restoration Sampling and Analysis Plans (SAP)
1	Quality Assurance Program (QAP)	Operable Unit 1 OU 11 SSI Hillsdale Area		Recycling Concrete	Rocky Flats Industrial Area	OU 1 Disposal Removal	Soil & Asphalt Management	Industrial Area
	XUAN	TACK	XUAN			TACK		NOT REVIEWED
2	Historical Release Report for RFP	OU 1 Final Major Modification		Facility Disposition			Routine Soil Remediation	Buffer Zone
		TACK	XUAN			NOT REVIEWED	TACK	
3	Environmental Restoration Standard Operating Procedures			Facility Component Removal, Size Reduction, and Decommissioning Activities	OU 1 SSI Hillsdale Area	OU 7 Passive Seep Collection and Treatment System		
		BIRK	TACK	XUAN	TACK			
4	Rocky Flats Site Wide Integrated Public Involvement Plan	OU 11 West Spray Field	B 707 DOP		Surface Water South Walnut Creek Basin	OU 7 Modified		
5	Treatability Study Work plans	OU 15 Inside Building Closures	B 771/774 DOP		Modification to Surface Water South Walnut Creek Basin	OU 7 Modified		

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# Rocky Flats' Administrative Record

(based on RFA Attachment 12)

Site	Health & Safety Program Manual	DO NOT DISSEMINATE	B 716/77 DOP	Termination of the Surface Water South Walnut Creek Basin	Environmental Remediation Interim Measures/Action (ER IM/IRA)	D&D Rocky Flats Cleanup Agreement (RFA) Standard Operating Procedures (D&D RSOP)	Environmental Remediation Proposed Action Memoranda (ER FAM)	Environmental Restoration RFA Standard Operating Procedures (ER RSOP)	Environmental Restoration Sampling and Analysis Plans (SAP)
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6	Site Health & Safety Program Manual	DO NOT DISSEMINATE	B 716/77 DOP	Termination of the Surface Water South Walnut Creek Basin	Environmental Remediation Interim Measures/Action (ER IM/IRA)	D&D Rocky Flats Cleanup Agreement (RFA) Standard Operating Procedures (D&D RSOP)	Environmental Remediation Proposed Action Memoranda (ER FAM)	Environmental Restoration RFA Standard Operating Procedures (ER RSOP)	Environmental Restoration Sampling and Analysis Plans (SAP)
7	Final EIS for the Disposal of the High Level Waste	DO NOT DISSEMINATE	B 716/77 DOP	Map of the High Level Waste Disposal Area	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE
8	NOT REVIEWED	DO NOT DISSEMINATE	B 716/77 DOP	Final Remedial Site Characterization Report	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE
9	Final Remedial Site Characterization Report	DO NOT DISSEMINATE	B 716/77 DOP	Final Remedial Site Characterization Report	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE
10	Final Remedial Site Characterization Report	DO NOT DISSEMINATE	B 716/77 DOP	Final Remedial Site Characterization Report	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE	DO NOT DISSEMINATE

8/22/2005

2

Attachment 1

# Rocky Flats' Administrative Record

(Based on RFCA Attachment 12)

Slide Documents	Corrective Action Decision/Record Of Decision (CAD/ROD)	Decontamination & Decommissioning (D&D)	D&D Rocky Flats Cleanup Agreement (RFCA) Standard Operating Procedures (D&D RSOP)	Environmental Restoration Interim Measures/Interim Remedial Action (ER IM/IRA)	Environmental Restoration Proposed Action Memoranda (ER PAM)	Environmental Restoration RFCA Standard Operating Procedures (ER RSOP)	Environmental Restoration Sampling and Analysis Plans (SAP)
Final resolutions of previous disputes [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	Corrective Action Management Unit (CAMU) for Contaminated Storage at RFETS	Source Removal at the Mound Site		
TACK Integrated Monitoring Plan FY98/FY99	XUAN SAP for D&D of B 991, 559, & 881	XUAN		CAMU for Bulk Storage at RFETS	Source Removal at Trench 1		
Discommissioning Plan FY98/FY99	D&D Characterization Protocol			Solar Panels Plans Remediation Project	East Trenches Plume		
TACK Final Surface Water Remedial Action Objectives Tech Memo	Site Wide Pre-Remediation Survey Plan			Present Landfill IM/IRA and RCRA Closure	[REDACTED]		
Final Work Plan for the Development of the Remedial Investigation and Feasibility Study Report	[REDACTED]	[REDACTED]		[REDACTED]	TACK		
	XUAN	XUAN		XUAN			

8/22/2005

Rocky Flats' Administrative Record  
(Based on RFOA Attachment 12)

Sitewide Documents	Corrective Action Record Of Decision (CAR/ROD)	Decontamination & D&D (D&D)	D&D Rocky Flats Cleanup Agreement (RFOA) Standard Operating Protocols (D&D RSOP)	Environmental Restoration Measures/Interim Remedial Action (ER IM/IRA)	Environmental Restoration Action Memoranda (ER RAM)	Environmental Restoration RFOA Standard Operating Protocols (ER RSOP)	Environmental Restoration Sampling and Analysis Plans (SAP)
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15	Final 1997 Integrated Water Management Plan for RFFTS			Original Landfill (HSS 115 Original Landfill HSS 196 & Filter Backwash Pond)			
16	RFFTS Natural Resource Management Policy			Groundwater at RFFTS			

NOTES:

1. Areas highlighted in [redacted] are selected for HORIZONTAL review.
2. Areas highlighted in [redacted] are selected for VERTICAL review.
3. NAMES under each area identify the lead assessor for that area.
4. Areas marked NOT REVIEWED were originally selected for review but were not reviewed because it was determined that sufficient data had been collected to support the assessment findings and observations and the data collection phase was complete.

8/22/2005

## **CERCLA Administrative Record Assessment Report**

1. **Assessment Number:** RFPO-05-0005

2. **Date:** August 4, 2005

3. **Introduction:**

After physical completion of the Rocky Flats Closure Project, the Rocky Flats Project Office (RFPO) must complete regulatory closure with the Colorado Department of Public Health & Environment (CDPHE) and the Environmental Protection Agency (EPA). The Rocky Flats Environmental Technology Site's (Site) Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Administrative Record (AR) is the primary documentation used to demonstrate compliance with CERCLA requirements for 1) evaluation and selection of response actions, and 2) public participation in review of proposed actions prior to selection of an action. The RFPO must ensure that the AR is adequate to support regulatory closure prior to the declaration of physical completion by the Site contractor.

4. **Conclusion:**

There is an Administrative Record Program being implemented at the Rocky Flats Environmental Technology Site, however, the Site should make some improvements to demonstrate more clearly that the program complies with the CERCLA requirements for evaluation and selection of the response actions, and to facilitate public participation in review of the proposed actions.

**Recommendations:**

- a. DOE should request K-H to certify that the administrative record for each closed OU is complete and accurate so that DOE can subsequently certify that the AR is compiled and maintained in accordance with applicable EPA regulations and guidance.
- b. K-H should have the indexes in both hard copy and electronic format. Since the CDs have shorter life span and easier to be scratched or damaged than hard copies.
- c. K-H should have separate Index for each closed Operable Unit.

## **5. Findings:**

- a. There was a period (~2 years) of unclear responsibility on who was the official DOE Administrative Record Coordinator (ARC) because there was no formal designation. Implementation of the RFETS CERCLA Administrative Record Program (1-F78-ER-ARP.001 Rev.2) was not fully conducted, e.g., no training was available to DOE employees and support services contractors regarding AR requirements, no coordination with other DOE staff, and no close oversight of K-H administration and maintenance of the AR system.

### **Requirements:**

- RFETS CERCLA Administrative Record Program 1-F78-ER-ARP.001 Rev.2, effective 11/12/01
- Rocky Flats Cleanup Agreement, 7/16/96

- b. Separate Index for each closed Operable Unit (OU) was not completed. There were 5 closed OUs, but the Indexes for all of them were not evident.

### **Requirements:**

- RFETS CERCLA Administrative Record Program 1-F78-ER-ARP.001 Rev.2, effective 11/12/01
- DOE Office of Environmental Guidance DOE/EH-231-010/1291, November 1991

- c. A "Compendium of CERCLA Response Selection Guidance Documents" is not found as part of the administrative record. Guidance documents, or portions of guidance documents, that are considered or relied on in selecting a CERCLA response action need to be part of the administrative record file. The term "guidance" does not imply that only guidance documents are included. The documents may also be policies, memoranda, clarifications, case studies, manuals, handbooks, reports, and other documents used in the selection of the CERCLA response actions.

### **Requirements:**

- Final Guidance on Administrative Records for Selecting CERCLA Response Actions, OSWER Directive #9833.3A-1, 12/3/1990
- Selected Technical Guidance for Superfund Projects, OSWER Directive 9200.7-01
- Rocky Flats Cleanup Agreement, 7/16/96

## **6. Observations:**

- a. Weakness: Several scanned graphs were illegible, e.g., OU 03-A-000568)
- b. Weakness: Some scanned memos were illegible, e.g., OU 03-A-000568. The original copy from the official record was also found to be illegible; however, no attempt was made to request for a better copy for the official file.
- c. Weakness: The electronic AR records are not user friendly, i.e., some specific documents could not be easily searched. They are filed in sequence of documents entered into the system. The file folders are coded with numbers and users have to know the index to search for the exact documents. After the Site is closed and all knowledgeable officials and support contractors from RFETS leave the Site, it will be hard for new personnel to retrieve specific documents electronically.
- d. Weakness: The Site chose to use the "Index" option instead of "File Structure" for the CERCLA Administrative Record. The "File Structure" system is more self-explanatory with an index of file structure such as: Site Identification, Removal Response, Remedial Investigation, Feasibility Study, Record of Decision, State Coordination, Enforcement, Health Assessments, Natural Resource Trustees, Public Participation, Technical Sources and Guidance Documents.
- e. Weakness: An index of documents in the complete Administrative Record files did not accompany each update to the Administrative Record files. Distribution of the annual index update was not evident.
- f. Strength: Current support contractors are knowledgeable of the AR system and are very helpful. Currently, all AR records are stored in boxes in B61 while waiting to be archived at the Denver Federal Center. Hard copies could be retrieved quickly as long as the retrieving personnel have an index of those boxes. This box Index is understood to be temporary until the records are archived at Denver Federal Center.

## **7. Documents Reviewed:**

- OU 3 Administrative Records
- CERCLA Administrative Record File Index Final Report
- Site Quality Assurance Program (QAP), Rev. 1, Kaiser-Hill Company, LLC Effective February 2, 1996; as updated.
- U.S. Department of Energy, Building 123, Proposed Action Memorandum, Rocky Flats Environmental Site, Golden, Colorado, August 1997. Approved by CDPHE on August 25, 1997.
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- U.S. Department of Energy, Proposed Action Memorandum (PAM) for Decommissioning Building Cluster 980 (B980), Revision 0, Rocky Flats Environmental Technology Site, Golden, Colorado, August 15, 1997. Approved by CDPHE on August 25, 1997.
- U.S. Department of Energy, Interim Measure/Interim Remedial Action for IHSS Group 900-11, 903 Pad Lip Area, Rocky Flats Environmental Site, Golden, Colorado, August 25, 2004. Approved by EPA on September 20, 2004.
- U.S. Department of Energy, RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities, Rocky Flats Environmental Technology Site, Golden, Colorado, February 4, 2001. Approved by EPA and CDPHE on February 22, 2001.
- U.S. Department of Energy, Interim Measure/ Interim Remedial Action for IHSS Group 900-11, 903 Pad lip Area, Rocky Flats Environmental Site, Golden, Colorado, August 25, 2004. Approved by EPA on September 20, 2004.

**8. Interviews:**

- Laura Brooks, K-H
- Richard Schassburger, DOE
- Norma Castaneda, DOE
- Warren Seyfert, DOE
- Mike Wolfe, Source One
- Gary Wolfe, Source One
- Ruth Ellison, Source One

**9. Activities Observed:**

- Building 61 warehouse where CERCLA administrative records were actually stored

**10. Prepared by: Lam Xuan**

## **CERCLA Administrative Record Assessment Report**

1. **Assessment Number:** RFPO-05-0005

2. **Date:** August 4, 2005

3. **Introduction:**

After physical completion of the Rocky Flats Closure Project, the Rocky Flats Project Office (RFPO) must complete regulatory closure with the Colorado Department of Public Health & Environment (CDPHE) and the Environmental Protection Agency (EPA). The Rocky Flats Environmental Technology Site's (Site) Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Administrative Record (AR) is the primary documentation used to demonstrate compliance with CERCLA requirements for 1) evaluation and selection of response actions, and 2) public participation in review of proposed actions prior to selection of an action. The RFPO must ensure that the AR is adequate to support regulatory closure prior to the declaration of physical completion by the Site contractor.

4. **Conclusion:**

From at least 1990 to present, both EG&G and Kaiser-Hill have had procedures and processes in place to capture documents for the Administrative Record. These processes and procedures remained in place through contract and personnel transitions and were quite effective. A limited number of key documents could not be found. The electronic search capability of the AR Index is ineffective.

**Recommendations:**

- a. DOE should request K-H to certify that the administrative record for both RFETS and each closed OU is complete and accurate so that DOE can subsequently certify that the AR is compiled and maintained in accordance with applicable EPA regulations and guidance.
- b. K-H should have the indexes in both hard copy and electronic format. Since the CDs have shorter life span and easier to be scratched or damaged than hard copies.
- c. K-H should have separate Index for each closed Operable Unit.
- d. KH should provide an effective electronic search capability for the AR Index.

**5. Findings:**

- a. The AR index electronic search capability is worse than "not user friendly", but is ineffective in retrieving documents with either known titles or known dates.
- b. The OU-3 AR index attachment transmitted by Gail Hill (OU03A 000527) (April 8, 1997) could not be found. Two attachments that were located with the transmittal letter identified documents to be added to AR. Four of the identified documents to be added could not be located. The missing (OU-3) pieces of this particular correspondence are raised to the level of a Finding because RFETS intends to initiate the process of delisting OU-3 from the National Priorities List before delisting the remainder of RFETS.

**6. Observations:**

**Strengths:**

- a. AR procedures in place from at least 1990 to present through transition through EG&G and KH contracts.
- b. Procedures capture incoming and out going correspondence and documents and seems to work well.
- c. No interviewees could identify any gaps or weaknesses in procedures.
- d. The OU-16 AR file appeared complete.
- e. The B 779 File appeared complete.

**Weaknesses:**

- a. Public meeting minutes were not recorded and entered in AR.
- b. Strategic planning documents showing evolution of closure strategies and key audits (Independent Reviews) as the Site evolved from an operating facility to a closure mission with an end state were not part of AR. This is not a technical requirement, but DOE believes the thought process should be captured. (DOE will input a chronological list as a note to file.)
- c. At this point in time, the Site cannot be assured that all of the contents of AR file boxes sent out for copying came back. All of the file boxes examined from B 779 had files that were out of order, as is the deck had been shuffled.

- d. File OU-3-A-00054 contained the wrong title in the database.
- e. The OU-3-A- 000491 database says CAD ROD; actually it is EPA comments on Draft CAD ROD and the transmittal letter is buried in the comments.
- f. Document OU 03-A-000523 is a copy with a sticky note attached, rendering the message illegible.

**7. Documents Reviewed:**

- OU 3 Administrative Record File
- OU-16 Administrative Record File
- Building 779 Administrative Record File
- EPA OSWER Guidance for CERCLA Administrative Record

**8. Interviews:**

- Laura Brooks, K-H
- Richard Schassburger, DOE
- Frazer Lockhart, DOE
- Norma Castaneda, DOE
- John Rampe, DOE
- Warren Seyfert, DOE
- Pat Thalwitzer,
- Lisa Cranford,
- Holly Young,

**9. Activities Observed:**

- Building 61 warehouse where CERCLA administrative records were actually stored

**10. Prepared by: Bob Birk**

**Rocky Flats Environmental Technology Site  
CERCLA Administrative Record  
Assessment Report**

**1. Assessment Number:** RFPO-05-0005

**2. Date:** July 5, 2005 - August 12, 2005

**3. Introduction:**

The Rocky Flats Closure Project is nearing physical completion. After physical completion, the Rocky Flats Project Office (RFPO) must complete regulatory closure with the Colorado Department of Public Health and Environment (CDPHE) and the U.S. Environmental Protection Agency (EPA). The Rocky Flats Site's Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record (AR) represents the primary documentation used to demonstrate compliance with CERCLA requirements for (1) evaluation and selection of response actions for cleanup and (2) public participation in review of proposed actions prior to selection. The critical site documents that constitute the CERCLA AR will also provide the U.S. Department of Energy (DOE) Office of Legacy Management with the primary baseline for the information needed to support long-term stewardship of the Rocky Flats Site.

**4. Conclusion:**

RFPO must ensure that the AR is adequate to support regulatory closure prior to the declaration of physical completion by the site contractor.

This assessment addresses compliance of the RFETS CERCLA AR to each of the following requirements:

- CERCLA [Title 42 *United States Code* (U.S.C.) Section 9613 and Title 40 *Code of Federal Regulations* Parts 300.800-825)
- Final Rocky Flats Cleanup Agreement (RFCA)
- U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response (OSWER) Directive No. 9833.3A-1, *Final Guidance on Administrative Records for Selecting CERCLA Response Actions*
- RFETS Site Procedure 1-F78-ER-ARP.001; Revision 2, "CERCLA Administrative Record Program"

The following cleanup response actions included in the Rocky Flats Closure Agreement were reviewed by the team members who approved this section of the report. The assessment included thorough reviews of the AR record copy (hard-copy format) and the AR database. LibertyNet was used minimally, as requested by Kaiser Hill in the C. Deck memorandum dated July 14, 2005.

- Operable Unit 1 (OU 1) 881 Hillside Area

- OU 1 Final Major Modification
- B 371/374 Decommissioning Operations Plan (DOP)
- OU 4 Solar Evaporation Ponds
- OU 1 881 Hillside Area
- OU 1 Hotspot Removal
- Routine Soil Remediation
- OU 1 Major Modification to 881 Hillside Area
- Individual Hazardous Substance Site 109 (IHSS 109) Ryan's Pit
- Colorado Hazardous Waste Corrective Action Section of the Operating Permit (IHSS 109, OU 2)
- Final resolutions of previous disputes that are relevant to RFCA
- *Decommissioning Program Plan*
- IHSS 101 and RCRA Closure of the Solar Evaporation Ponds

On the basis of our assessment, the CERCLA AR has several areas of concern that require corrective action.

## 5. Findings

**Requirement** – U.S. Environmental Protection Agency OSWER Directive 9833.3A-1, *Final Guidance on Administrative Records for Selecting CERCLA Response Actions*, dated December 3, 1990.

- *Section II E.2, Technical Literature, indicates "Publicly available technical literature that was not generated for the site at issue (e.g., an engineering textbook), does not have to be located in the regional office or other central location or at or near the site. The document must be clearly referenced in the (CERCLA AR) index."*

On the basis of our review of the AR, the AR index, RFETS Site Procedure 1-F78-ER ARP.001, Revision 2, and conversations with Kaiser Hill staff, it does not appear that technical literature used in remedial decisions are referenced in the AR index.

**Requirement** - RFETS Site Procedure 1-F78-ER-ARP.001, Revision 2

- *Section 5.1, Identifying Potential CERCLA AR Documents, [4] requires that documents included in a decision document reference section must be included in the project-specific AR file unless otherwise excluded by Appendix 2.*

During this assessment, several documents that were identified as references in critical decision documents were not found in the AR file.

- *Document number BZ-A-000737 is the final Interim Measure/Interim Remedial Action for IHSS Group 900-11 (903 Lip Area and Vicinity Operable Unit 1 881 Hillside). This document includes a reference to Regulatory Contact Record, 2003,*

Comment resolution meeting minutes dated December 18, 2003, was not found in the AR by the assessment team members (please refer to Attachment A).

**Requirement - RFETS Site Procedure 1-F78-ER-ARP.001, Revision 2**

- *Section 5.2, Submission of Potential CERCLA AR Documents, [4] requires that documents being submitted to the AR are unmarked, legible, and signed as applicable unless otherwise directed by the DOE ARC.*

During this assessment, several documents in the CERCLA AR were of very poor quality. The quality issue was apparent for older legacy documents and the trend to include less than good quality documents continues to date.

- *Document number A-OU0-000597 is a draft of comments provided on the Proposed 881- Hillside French Drain Project Final Biological Survey Report (please refer to Attachment B – two examples; also includes example of poor legibility).*

This document did not have evidence of direction provided by the DOE ARC to accept it for inclusion in the AR (please refer to Attachment B).

## **6. Observations**

**Observation 1.** (Please see assessor attachments for additional details.)

The RFETS Site Procedure 1-F78-ER-ARP.001, Revision 2, has not been revised since November 12, 2001, and should be reviewed and revised accordingly. Because this document will include involvement by external groups after RFETS site closure, the Office of Legacy Management and the Office of Environmental Management Consolidated Business Center should be included in the review and approval cycle of any revisions.

**Observation 2.** (Please see assessor attachments for additional details.)

During the team's review of document number I101-A-000331, *Draft Closeout Report for IHSS Solar Evaporation Ponds*, it was noted that Appendix C of the document that was included in the report as a CD was not present. A cross-reference to the CD or a paper version of its contents should be included with the document in the AR (please refer to Attachment C).

The migration and preservation of special mixed media in the AR is a concern to DOE. Because the retention of the record copy of the AR is 75 years or longer, Kaiser Hill should provide DOE with a plan for the migration and preservation of this valuable material.

**7. Documents Reviewed:**

Specific documents of concern included as assessor attachments. The scope of documents reviewed during this assessment is included as a reference in the introduction to this report.

**8. Interviews:**

Several interviews were held with Kaiser Hill and SOM personnel and pertinent notes have been incorporated into the text of this report.

**9. Activities Observed:**

The team observed the identification and retrieval of AR documents from the AR record copy (hard-copy format), the AR database, and the use of LibertyNet.

**10. Prepared by:**

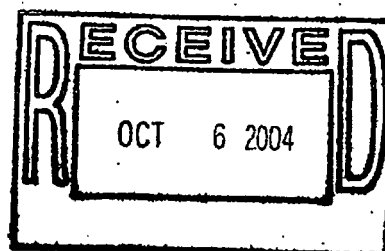
Jeffrey G. Tack



**FINAL**

**INTERIM MEASURE / INTERIM  
REMEDIAL ACTION FOR  
IHSS GROUP 900-11  
(903 LIP AREA AND VICINITY,  
THE WINDBLOWN AREA,  
AND SURFACE SOIL IN  
OPERABLE UNIT 1 [881 HILLSIDE])**

**ROCKY FLATS ENVIRONMENTAL  
TECHNOLOGY SITE**



August 25, 2004

ADMIN RECORD  
BZ-A-000737

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261


25

*Interim Measure / Interim Remedial Action for  
IHSS Group 900-11 (903 Lip Area and Vicinity, the Windblown Area, and Surface Soil in Operable Unit 1 (881 Hillside))  
Rocky Flats Environmental Technology Site*

## 9.0 REFERENCES

- ✓ Barker, C.J. Removal of Plutonium-Contaminated Soil From the 903 Pad During 1976 and 1978. RFP-3226, January 24, 1982. Rockwell International. Rocky Flats Plant, Golden, CO.
- ChemRisk, 1992. Reconstruction of Historical Rocky Flats Operations and Identification of Release Points. Project Tasks 3 and 4. Final Draft Report. Prepared by ChemRisk for the Colorado Department of Health. August 1992.
- ✓ CH2M Hill, 1996. Final Construction Report for the Woman Creek Dam and Reservoir Project. Prepared by CH2M Hill. February 1996.
- Clark, D. L., 1991. Pyrophoric Potential of Finely-Divided Plutonium Metal in Soil at the 903 Drum Storage Site. Rocky Flats Plant, Golden, Colorado. Los Alamos National Laboratory. February 1991.
- ✓ Regulatory Contact Record, 2003. Comment resolution meeting, meeting minutes, December 18, 2003. *MISSING - NOT IN AR.*
- ✓ Regulatory Contact Record, 2004. Comment resolution meeting, meeting minutes, March 4, 2004. - *FOUND IA-A-002049.*
- DOE, 1990. Air Emissions Annual Report for 1989 - 40 CFR 61.94. U.S. Department of Energy. Rocky Flats Plant. Golden, CO. April 1990.
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# Endangered Species Act COMPLIANCE



~~PROPOSED~~ 881-HILLSIDE FRENCH  
DRAIN (881-HFD) PROJECT

FINAL BIOLOGICAL SURVEY REPORT

DEPARTMENT OF ENERGY  
ROCKY FLATS OFFICE  
GOLDEN, CO

OCTOBER 1991

ADMIN RECORD

A-DU01-000597

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## 1.0 INTRODUCTION

Correspondence between the Department of Energy, Rocky Flats Office (DOE, RFO) and the U.S. Fish & Wildlife Service (USFWS) (dated 18 September 1991) identified several proposed remedial action and operational projects at RFP which may require official (Section 7) consultation with USFWS regarding potential impacts to resources protected under the Endangered Species Act (ESA) [16 U.S.C 1531 *et. seq.*]. Internal DOE, RFO guidance further emphasized the need to insure compliance with applicable biological regulations ~~before proceeding with the proposed~~ 881-Hillside French Drain (881-HFD) project. On 19 September 1991, DOE, RFO met with USFWS, Golden, CO, to discuss Rocky Flats Plant (RFP) compliance with the ESA. *and 10 October, 1991*

This report is concerned with two classes of species, one of which is a subset of the other:

- **Species of Concern (SOC species):** T&E species, *(see below)* plus those which are federal Category 1, 2 or 3 species, state threatened or endangered species, or state species of concern.
- **Threatened & Endangered (T&E species):** are a subset of SOC species which includes only those listed (threatened or endangered) or proposed to list under federal regulations. These are the species to which the ESA directly applies and the ones injury to which could result in civil and/or criminal penalties.

At the meeting *it* was determined that consultation would be required on the ~~proposed~~ *881-HFD* project. To limit impacts to 881-HFD construction schedules, DOE, RFO requested that the consultation process be expedited. To facilitate expeditious consultation, DOE, RFO and USFWS agreed that DOE, RFO would prepare a report summarizing ecological survey data pertinent to SOC species collected during: (a) performance of the 881 Hillside Operable Unit 1 (OU1) Environmental Evaluation (EE) and (b) special surveys on the 881-HFD project site. USFWS visited the 881-HFD site; the visits took place on 26 September 1991 and 17 October 1991.

USFWS agreed to review the report to determine whether sufficient information had been collected to-date to allow assessment of potential impacts to ~~threatened or endangered~~ *T & E* species or their habitats in or near the 881-HFD project.

Furthermore, DOE, RFO is undertaking development of: (a) an addition to the Ecology SOP to direct the identification, reporting, and support of T&E species observed at RFP and (b) a RFP sitewide procedure to govern compliance with ESA with respect to future facility and remediation projects. Both procedures are presently in draft form and under review by the Environmental Protection Agency (EPA), the Colorado Department of Health (CDH), USFWS, and the Colorado Division of Wildlife (CDOW).

## 2.0 DESCRIPTION

### 2.1 Project Description

Details of the 881-HFD Project are contained in the 881 Hillside Operable Unit 1 Interim Remedial Action Plan (IRAP). In general, the excavation for the French Drain will extend along a section of the 881 Hillside to allow installation of a groundwater collection system. The excavation will vary in sections from 3 to 10 meters in depth and from 10 to 30 meters in width, and extend for approximately 800m along an east-west transect. The location for the proposed project is shown in Drawing 1. The project will impact a total of about 2.8 hectares (approximately 7 acres).

why was  
correction?  
not made

## 2.2 Resource and Habitat Description

An updated list of SOC species which potentially exist at RFP is provided in Table 1; annotations show those with a documented presence at RFP and those with a documented presence at or near the project site.

The Threatened and Endangered Species Evaluation Report, Rocky Flats Plant Site (April 4, 1991), prepared by EG&G Rocky Flats, Inc., provides a broad picture of potential T&E species at RFP and provides the most recently published wetlands map, habitat map, and prairie dog colony map. On 17 September 1991, USFWS transmitted to DOE, RFO a list of additional SOC species; these additional species were incorporated into Table 1. Also applicable to surveying for SOC species is the recent delineation of habitat types (updated habitat map to be finalized by November 1991).

(see  
sec. 3.4,  
p. 4)

Habitat types to be disturbed include woodlands, wetlands, wet meadow, short and tall marsh, disturbed areas, and mesic grasslands. The primary habitat is highly disturbed and typified by successional and rehabilitation species. Habitat types immediately adjacent to the 881-HFD project site include wet meadow, short marsh, mesic grassland, rehabilitation, and disturbed types. Activities in and near the 881-HFD will affect approximately 2.8 hectares (approximately 7 acres).

## 3.0 SURVEY

### 3.1 Design

Methodologies used for ecological surveys at RFP are specified in the EG&G Environmental Management Department Standard Operating Procedures (SOP) Volume 5.0 Ecology. These SOPs have been approved for use on CERCLA/RCRA investigations by EPA, CDH, USFWS, and the ~~Colorado Division of Wildlife (CDOW)~~. Each Ecology SOP specifies a Master's Degree and two years of field experience as the minimum qualifications required of personnel conducting the surveys.

### 3.2 On-Site Inspection

RFP ecology field programs, which began in spring 1991, include the: (a) Threatened and Endangered Species Evaluation Report, Rocky Flats Plant Site, (b) Baseline Wildlife/Vegetation Studies, (c) OU1 environmental evaluation (EE), (d) OU2 EE, (e) OU5 EE, and (f) surveys specific to the 881-HFD project site. In the aggregate, these programs cover a survey area bounded on the west by a line 0.3 mile east of Highway 93, on the east by Indiana Street, on the north by Highway 128, and on the south by a line 0.5 to 1.0 miles north of Highway 72. Ecology surveys conducted within OU1, OU2, OU5, and OU fringe areas have more densely spaced sampling locations than do surveys conducted in OU "reference" and baseline areas.

The following types of ecological surveys were conducted throughout 1991 at or near the 881-HFD project site:

- **Relative Abundance Transects:** Three relative abundance transects (RA01A, RW01A, RG01A) were designed to sample fauna along the 881 Hillside about 200 meters above and below (parallel alignment) the proposed French Drain. Observations of the fauna in association with the three transects have been made monthly or bi-monthly since May 1991; each observation session required about one hour to complete. All observations of vertebrates and selected invertebrates (e.g.,

881-HILLSIDE FRENCH DRAIN PROJECT / FINAL BIOLOGICAL SURVEY REPORT

butterflies) were tallied and assigned to habitat types. Summaries were compiled in terms of species per unit time by habitat.

- **Emlen Bird Transects:** Twelve bird transects, ranging in length from 100 to 1000 meters, and totalling 3300 meters, were configured within habitats adjacent to the proposed project area, along Woman Creek and the 881 Hillside. Data have been compiled from these transects five times since May. Each sampling session required ten minutes to more than an hour to complete, depending upon the transect length and the number of birds present. Data were compiled on density of birds by season within habitat types.
- **Small Mammal Transects:** Nineteen, 25-trap transects were specifically designed to sample populations of small mammals along Woman Creek and the 881 Hillside on either side of the proposed French Drain. The sites were sampled over a four-night period in mid-May and again in late September, for a total of 3800 trap nights.
- **Vegetation Transects:** Vegetation sampling was conducted in conjunction with the aforementioned bird and mammal transects within the ditch environment. Data have been compiled on vegetation cover, density, composition, richness, and production from 80, 50-meter point-intercept cover transects, 80 2x50 meter belt transects, and from 140 0.25 m<sup>2</sup> production plots. The vegetation along the alignment of the proposed French Drain has been characterized and quantified using these techniques.
- **Insect Sweep-netting:** Insect populations have been characterized by sweep-netting the aforementioned mammal transects on three occasions from mid-summer to early fall.
- **Large Mammal Pellet Counts:** Occurrence of deer and rabbits has been documented by counting pellet groups in conjunction with the sampling of small mammals at the sites previously enumerated.
- **Fish Surveys:** A minimum of two minnow traps were placed for a minimum of three nights at six sites on the South Interceptor Ditch in the spring and fall, immediately adjacent to the 881-HFD project site, in order to determine if any fish species were present (none were). Elaborate fisheries surveys were conducted in Ponds C-1, C-2, and eight sites along Woman Creek in order to characterize the ichthyofauna. Data were obtained on water chemistry, benthic macroinvertebrates, periphyton, and plankton in conjunction with these surveys.
- **SOC Species Surveys (General):**
  - Δ **Prairie Dog Surveys:** In accordance with USFWS guidelines and directives, surveys of prairie dogs have been conducted on a regular basis since February, in order to ascertain the suitability of the RFP site for black-footed ferrets. Three small prairie dog colonies have been delimited on suitable maps. About 40 person-hours have been associated with this survey.
  - Δ **Raptor Surveys:** Intensive searches for habitat appropriate for raptor nests were conducted through the late winter, spring, and early summer. All observations of raptors have been recorded in a standardized format. These activities have consumed about 70 person-hours.
  - Δ **Rare Plant Surveys:** From time to time throughout the growing season, surveys were conducted for SOC species within suitable habitats. Particular attention was paid to searching

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suitable habitat for Lady's Tresses (*Spiranthes diluvialis*), the Colorado Butterfly Plant (*Gaura neomexicana*), and the Forktip Threeawn (*Astrida basiramea*).

- **SOC Species Surveys (Specific):** During the week of 7-11 October 1991, the phreatophytic zone of the SID and adjacent portions of Woman Creek and its tributaries were searched for SOC species, with particular reference to the possible occurrence of *Spiranthes diluvialis*. The xeric and transition portions of the corridor were carefully examined for the possible occurrence of *Aristida basiramea*, *Gaura neomexicana*, and other SOC plant species.

Minnow traps were placed at an additional four sites on the SID and an additional 11 sites on Woman Creek and its tributaries in an attempt to ascertain the status of the Common Shiner (*Notropis cornutus*), a Colorado State species of concern, and the Plains Top Minnow (*Fundulus sciadicus*), a federal Category 2 species.

Additional traplines were established in late September and early October in OU5, to the west of the project area, in an attempt to better ascertain the range of *Zapus hudsonius preblei*.

### 3.3 Interviews with Experts

EG&G has discussed the potential occurrence of *Spiranthes diluvialis*, *Aristida basiramea*, *Zapus hudsonius preblei*, *Gaura neomexicana*, and other SOC species with Dr. Fred Harrington (Ebasco Services, Inc.), who currently serves as Field Supervisor for the sitewide biological baseline studies and for the OU1 EE. Dr. Harrington has, in turn, consulted with appropriate specialists in order to make a proper determination of the status of SOC species in, or near, the project site. Dr. Harrington has 32 years experience in ecosystem research, planning, and management, including extensive experience with T&E species management; his resume appears in Attachment A.

### 3.4 Literature Review

✓ correction applied  
The Threatened and Endangered Species Evaluation Report, Rocky Flats Plant Site (April 4, 1991) provides a broad picture of potential SOC species at RFP and contains a literature review for those species. Literature searches have been performed for all of the additional species on the USFWS list (Table 1) and are included as Attachment 2 in Identification and Reporting of Threatened and Endangered and Special Concern Species, EMD Administrative Procedures Manual (3-21000-ADM), Procedure NEPA.12 (15 October 1991 draft).

## 4.0 RESULTS

These results represent ecological survey data collected between late winter 1991 and 11 October 1991 during the aforementioned surveys. They also include all documented findings of SOC species at RFP that might be impacted by the proposed 881-HFD Project.

### 4.1 Presence of Compliance-Listed Species

- **Preble's Meadow Jumping Mouse:** One individual assigned to this species (*Zapus hudsonius preblei*), a federal Category 2 species, was confirmed as having been captured and released in a rehabilitation habitat type transect (MR02A) about 50 meters south of the 881-HFD during the spring sampling season. Attempts to trap *Zapus* in the vicinity of the 881-HFD during the fall period were unsuccessful. This lack of success may have been due to: (a) the hibernation behavior of *Zapus*, (b)



- **Black-footed Ferret:** Two small black-tailed prairie dog colonies, about 1500 meters northeast and 2000 meters east of the 881-HFD, aggregated to about 10 and 5 hectares, respectively. Each contained fewer than 40 individuals. The ferret (*Mustela nigripes*), a federal and state endangered species, may be associated with prairie dog colonies above a certain size. However, given the small size of these prairie dog colonies, it is extremely unlikely that *M. nigripes* is present.
- **Forktip Threawn:** This species (*Aristida basiramea*), a Colorado State species of concern, has been found just south of the west access road entering Rocky Flats, growing on gravel scars bordering an old roadway, 1000 meters to the west of the 881-HFD. This gravel habitat can apparently support the species when other plants are absent and adequate moisture can accumulate. Given these habitat preferences, it is highly unlikely that this species would be found in the 881-HFD and none have been observed there.
- **Diluvium Lady's Tresses:** Appropriate habitat for the diluvium lady's tresses (*Spiranthes diluvialis*), a federal proposed endangered species, includes the edge of wetlands dominated by sedges, rushes, and cattails. Populations of the plant have been found in Jefferson and Boulder Counties on either side of the RFP site. There is a small wetland area within the 881-HFD project area that may be suitable habitat for this species. However, an extensive search during the flowering period (reported as extending from early July to early October) of this species, in the wetland area of the 881-HFD, yielded negative results.
- **Colorado Butterfly Plant:** Appropriate habitat for the Colorado butterfly plant (*Gaura neomexicana* var. *coloradensis*), a federal Category 2 species, includes the transition zone between wetland bottoms and the drier uplands associated with wet meadow habitat. Given that there is suitable habitat for this species adjacent to the 881-HFD, there was a reasonable probability that the species might be found on the project site. However, an extensive search during the flowering period (reported as extending from early July to late September) of this species, throughout the 881-HFD project area, yielded negative results. *AWH* *OK*
- **Bald Eagle:** Individuals of this species (*Haliaeetus leucocephalus*), a federal and state endangered species, have been observed soaring over the developed area and flying over the northeast portion of the buffer zone. None have been observed to roost or hunt on RFP and none have been observed in proximity to the 881-HFD.
- **Peregrine Falcon:** Two individuals of this species (*Falco peregrinus*), a federal and state endangered species, were observed at RFP in early fall. One was flying from west to east near the west gate. The other was observed perched on a powerline near Pond B-5 and made an attempt to capture a killdeer inbound to Pond B-5. However, no nesting or roosting activities have been observed and none have been observed in proximity to the 881-HFD.

observed in proximity to the set in D.

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- **Ferruginous Hawk:** This species (*Buteo regalis*), a federal Category 1 species, was observed adjacent to the 881-HFD in winter, spring, and early summer. A juvenile male was resident in the vicinity in the area for a six week period in early late spring and early summer; nestling was not documented. This individual was observed hunting primarily in the riparian zone of Woman Creek and along the 881 Hillside, directly above the proposed French Drain project site. Most observations of this species have been in association with prairie dog colonies southeast of RFP.
- **Swainson's Hawk:** A pair of this species (*Buteo swainsonii*), a federal Category 3 species, attempted to nest in early June in a cottonwood about 1000 meters southeast of the 881-HFD. The nest was abandoned for unknown reasons in early July. During this period, members of the pair were not observed hunting in the vicinity of the 881-HFD, although other observations of this species have been documented infrequently but widely on the RFP site.
- **Other:** No additional SOC species are expected to occur with any degree of regularity in association with the 881-HFD project site.

#### 4.2 Presence of Critical Habitat

No T&E species have been documented in or near the project site and the majority of the project site's 2.8 hectares should not be considered as critical to T&E species.

### 5.0 ANALYSIS OF POTENTIAL IMPACTS

#### 5.1 Direct Impacts

Habitats (including wetlands) at the location of the 881-HFD Project will be totally destroyed during excavation. The small (approximately 400 m<sup>2</sup>) habitat group (two large cottonwood trees and associated wetland) above the western end of the French Drain alignment will be completely removed by the project. This is fairly unique habitat within the Woman Creek drainage and is known to support as many as 14 species of migratory birds both for nesting and foraging. Impacts to the grassland and wetland areas along the project alignment may be potentially harmful to the migratory birds utilizing the area.

Although the small wetland habitat in the 881-HFD does not represent a substantial portion of the total wetland habitat present at RFP, they comprise, none-the-less, a man-made jurisdictional wetland as defined in 33 CFR 328.3(b) and 40 CFR 230.3(i). This wetland is shown on the maps prepared for the Wetlands Assessment: Rock Flats Plant Site (01 April 1991). As the 881-HFD project is new construction, wetland impacts would not qualify for exclusion under 10 CFR 1022.5(g). Construction projects affecting wetlands not discussed in the September 1977 RFP EIS are subject to the requirements of 10 CFR 1022.

#### 5.2 Indirect Impacts

The proposed excavation activities could have an adverse impact on the dynamics of jumping mouse populations living adjacent to the southern edge of the construction site. As a general rule, there should be no earth-disturbing activities within 200 meters of *Zapus* nesting areas. While it is difficult to predict the magnitude and types of impacts to this species (and perhaps other SOC species) due to vibration, noise and other physical disturbances emanating from construction activities, attention has to be called to the fact that such impacts could occur.

There is also a possibility for increased sedimentation into Woman Creek from excavation activities at

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the SID Project. Due to the shallow nature of the creek even a small increase in sedimentation levels could greatly affect the macrobenthos and fish populations in the creek. Seven non-SOC species of fish have been identified in Woman Creek: Stoneroller (*Campestris anomalum*), Creek Chub (*Semotilus atromaculatus*), Golden Shiner (*Notemigonus crysoleucas*), Fathead Minnow (*Pimephales promelas*), Largemouth Bass (*Micropterus salmoides*), Green Sunfish (*Lepomis cyanellus*), and the Western White Sucker (*Catostomus commersoni*). The two SOC fish species that could be present at RFP, the Common Shiner (*Notropis cornutus*), a Colorado State species of concern, and the Plains Topminnow (*Fundulus sciadicus*), a federal Category 2 species, have yet to be observed in Woman Creek.

It is also possible that installation of the French Drain could restrict or eliminate recharge of a significant portion of the Woman Creek drainage from the 881 Hillside, including that portion of the creek which may harbor a *Zapus* population. Since the 881 Hillside French Drain system is designed to intercept groundwater flowing through alluvial materials, it is anticipated that its construction will decrease the flow of water through these materials downslope of the Drain. It is not currently known what impact this will have on the quantity of water carried by Woman Creek. Although it is believed that Woman Creek losses and gains water to and from alluvial materials along its length, its character downslope of the proposed 881-HFD project site is not fully known. The groundwater-surface water interactions are complex and appear to vary both spatially and temporally. Work is currently underway to determine these interactions more precisely using detailed discharge measurements at multiple sites along the Woman Creek drainage.

In addition, disturbance of the land around the 881-HFD due to excavation activities could lead to the invasion of opportunistic plant species that are less desirable as forage for small mammal and bird populations.

### 5.3 Cumulative Impacts

Immediately to the west of the 881-HFD project site, in the upper Woman Creek drainage, are the Old Landfill and Ashpits sites which are scheduled for remediation; however, specific actions for remediation of these sites have yet to be determined. The potential for cumulative impacts to SOC species, either from 881-HFD excavation activities, other projects along Woman Creek, or South Interceptor Ditch maintenance, certainly exists. However, sufficient information is not presently available to fully verify the existence, or characterize the extent, of cumulative impacts.

### 5.4 Platte River Hydrology

In order to avoid impacts to T&E species in Nebraska that are dependent upon downstream flows, water-related projects at RFP must demonstrate a zero net depletion to the Platte River basin.

Water collected by the French Drain is to be treated and returned to the Platte River watershed. It is anticipated that there will be no net loss of water to the Platte River as a result of the operation of the French Drain. While there could be evaporative or other process losses during the water treatment, they are estimated to be minimal and could be fully mitigated by the injection of make-up water. } not adequate

### 6.0 DETERMINATION

General and focused surveys have found no evidence of T&E species on, or in proximity to, the 881-HFD project site.

Based on the data currently available, DOE/RFO has determined that excavation of the 881-HFD

881-HILLSIDE FRENCH DRAIN PROJECT / FINAL BIOLOGICAL SURVEY REPORT

could have adverse direct, indirect, or cumulative impacts on SOC species in or near the project.

Based on the data currently available, DOE,RFO anticipates that construction of the 881-HFD will cause no net depletion to the Platte River basin. However, potential impacts to the hydrologic regime in Woman Creek are still being evaluated. *} not adequate*

Based on the data currently available, DOE,RFO has determined that any activity involving impacts to the small wetland habitat are subject to the requirements of 10 CFR 1022.1

- 
- 1) Prepared by EG&G Rocky Flats, EM/NEPA Division, (303) 273-6188. Report originally compiled and written by Ms. Meredith L. Brogden; re-written and edited by Dr. Bruce K. Hope; reviewed by Mr. Bruce J. Bevirt, Dr. Fred Harrington, Mr. Scott McGlochlin, and Dr. Lawrence E. Woods. Platte River hydrology analysis provided by Mr. Eric Mendes, EG&G Rocky Flats, EM/Surface Water Division. Information on the types and results of surveys conducted were transcribed from a report (Letter RFEV3-EDEN-EGRF-M-015) prepared by Dr. D. Jean Tate (Ebasco Services) and Dr. Fred Harrington (Ebasco Services) under EM/NEPA Division Contract BA64980EB.

TABLE 1 SOC SPECIES COMPLIANCE LIST FOR THE 881-HFD PROJECT					GROUP	COMMON NAME	SCIENTIFIC NAME	STATUS	RFP	SITE
PLANTS	Forkip Threearn		CO	yes	no		<i>Antilida basilarnea</i>			
	Colorado Butteilly Plant		C2				<i>Gaura neomexicana</i> var. <i>coloradensis</i>			
	Toothcup		CO				<i>Notula ramosior</i>			
	Diluvium Lady's Tresses		P				<i>Spiranthes dikeynalis</i>			
AMPHIBIANS & REPTILES	Northern Leopard Frog		C2	yes (?)	no		<i>Rana pipiens</i> spp.			
	Texas Horned Lizard		C2				<i>Phrynosoma cornutum</i>			
FISH	Plains Topminnow		C2				<i>Fundulus sciadicus</i>			
	Common Shiner		CO				<i>Notropis cornutus</i>			
BIRDS	Peregrine Falcon		E	yes	no		<i>Falco peregrinus</i>			
	Bald Eagle		E	yes	no		<i>Haliaeetus leucocephalus</i>			
	White-faced Ibis		C2				<i>Plegadis chich</i>			
	Ferruginous Hawk		C2	yes	forage		<i>Buteo regalis</i>			
	Whooping Crane		E				<i>Grus americana</i>			
	Harlequin Duck		C2				<i>Histrionicus histrionicus</i>			
	Western Snowy Plover		C2				<i>Charadrius alexandrus nivosus</i>			
	Mountain Plover		C2				<i>Charadrius montianus</i>			
MAIMALS	Piping Plover		T				<i>Charadrius nivosus</i>			
	Long-billed Curlew		C2				<i>Numenius americanus</i>			
	Least Tern		E				<i>Sterna enillatum</i>			
	Black Tern		C2				<i>Chlidonias niger</i>			
	Swinson's Hawk		C3	yes	forage		<i>Buteo swainsoni</i>			
	Yellow-billed Cuckoo		C3B				<i>Coccyzus americanus</i>			
	Swill Fox		C2				<i>Vulpes velox</i>			
	Black-footed Forst		E				<i>Mustela nigripes</i>			
	Piebles Meadow Jumping Mouse		C2	yes	close		<i>Zapus hudsonius prebei</i>			
	Fringed Myotis		C2				<i>Myotis thysanodes</i>			
STATUS: (E) endangered species (I) threatened species (CO) Colorado State species of concern (P) Proposed										
(C1) Federal Category 1 (propose to list) (C2) Federal Category 2 (appropriate to list but no data) (C3) Federal Category 3 (formally proposed)										



**HARRINGTON, FRED A.**

Biologist

**PROFESSIONAL SUMMARY**

Dr. Harrington has 32 years of professional experience in the energy and natural resources fields. He has performed a wide range of services including endangered species management; mine land planning, permitting, and reclamation; baseline and monitoring studies; mitigation planning; regulatory reviews and "fatal-flaw" evaluations; parks and reserves planning, design, and management; and a wide range of land use planning activities. He has served as project manager and principal investigator on projects throughout the Rocky Mountain region, Northern Great Plains, Pacific Northwest, Desert Southwest, and has worked for extended periods in Latin America and the Middle East. He is currently engaged in hazardous waste remedial investigations and related projects with the Department of Energy and the U.S. Army.

Dr. Harrington serves as Field Operations Leader for the Rocky Flats Plant biota baseline study under the Environmental Restoration Program and the Environmental Evaluation of Operable Unit (OU) 1. He has played a major role in developing standard operating procedures for biota investigations.

**EDUCATION**

Ph.D., Wildlife Biology, Colorado State University, 1978  
M.S., Natural Resources Administration, Colorado State University, 1969  
B.S., Wildlife Biology, Colorado State University, 1959  
Biology, University of New Mexico, 1955-56

**ADDITIONAL TRAINING**

Health and Safety Training Course, 40 hours, 1990  
Industrial Ecology Institute, Colorado School of Mines, 1980  
Business Administration Short Courses, Harvard/University of Tehran, 1973-75  
Alpine Ecology Summer Seminars, University of Colorado, 1966-1969  
Business Administration, University of Maryland, USAFI, 1964-1965

Dr. Harrington has organized and attended a very large number of conferences, conventions, and seminars that included topics in industrial ecology, ecological guidelines for land use, marine biology, endangered species management, mitigation, parks and reserves, and international conservation issues.

**REGISTRATIONS AND CERTIFICATIONS**

Registered Ecologist, Registry of the International Union for the Conservation of Nature and Natural Resources  
Certified International Diver, Professional Association of Diving Instructors  
Certified Flight Instructor (Airplane and Instruments) FAA  
Certified Ground Instructor (Advanced and Instruments) FAA  
Airline Transport Pilot Rating (Multi-engine) FAA

## PROFESSIONAL AFFILIATIONS OR MEMBERSHIPS

Sigma Xi, Ecological Society of America, American Society of Mammalogists, American Ornithological Union, Society for Range Management, Wildlife Society, International Union for the Conservation of Nature and Natural Resources, American Institute of Biological Science, Survival Service Commission

## SECURITY CLEARANCES

Rocky Flats Red Badge  
Department of Energy "Q" Clearance Pending

## EBASCO EXPERIENCE

Dr. Harrington joined EBASCO in 1990. He participates in a wide range of projects, including the Rocky Mountain Arsenal (RMA) Hazardous Waste Remedial Investigation/Feasibility Study for the U.S. Army Program Manager's Office for the RMA Contamination Cleanup and the Rocky Flats Plant Monitoring Program for the Department of Energy (DOE). He is currently assigned as Field Operations Leader for the Rocky Flats Plant biota baseline study and for the Environmental Evaluation of OU-1.

## THREATENED AND ENDANGERED SPECIES EXPERIENCE

As an advisor to the Survival Service Commission (SSC) of the International Union for the Conservation of Nature and Natural Resources (IUCN), Dr. Harrington played a major role in the creation and passage of CITES (Convention in Threatened and Endangered Species of Flora and Fauna), to which the United States and a majority of nations are now signatories.

As chief advisor to the Iran Department of the Environment (under the former Shah), Dr. Harrington was credited with developing a successful recovery plan for the Persian Fallow Deer, the world's rarest deer. He subsequently served with SSC's Deer Group in formulating recovery plans for other species of endangered cervids. He worked with IUCN, International Waterfowl Research Group (IWRB), International Council for Bird Preservation, the Soviet Union, Iran and the International Crane Foundation, in developing a recovery plan for the Siberian White Crane, the Eurasian counterpart of the Whooping Crane. He was credited with organizing the Ramsar Conference, which led to ratification of the MARR list, protecting wetlands of international concern throughout Eurasia.

He developed a management plan for endangered bustards in the Middle East, and was the first to raise Great Bustards successfully in captivity. He was involved in successful endangered species planning and management for the Marsh Crocodile, Caspian Snow Cock, Caspian "Salmon" (a race of Brown Trout), and sea turtles in the Persian Gulf.

Dr. Harrington was engaged as an advisor by several other Middle Eastern nations, including Bahrain, Pakistan, and Saudi Arabia. He worked with the Government of Oman to develop nature preserves for the endangered Arabian Tahr and Muscat Gazelle.

Upon returning to the United States in 1979, Dr. Harrington served as consultant and acting Western Regional Land Steward for the Nature Conservancy, San Francisco. In that capacity, he was responsible for endangered species planning and management in the Conservancy's eighty western preserves. He prepared master plans that included endangered species recovery plans for Sycan Marsh, Oregon (Greater Sandhill Cranes), Pine Butte Swamp, Montana (Grizzly Bears); Silver Creek, Idaho ("McCloud" Rainbow Trout);



Daudrich Northern Desert Shrub Reserve, Idaho (endangered ecosystems); Birds-of-Prey Reserve, Idaho (falcons); Gila River Riparian Reserve, New Mexico (endangered ecosystem); Dixon-Dozier Sanctuary, California (valley grassland, vernal pools, endangered flora, endangered invertebrates); Kipahulu Valley, Maui, Hawaii (endangered flora and birds); and many others.

As a private consultant in recent years, Dr. Harrington has prepared dozens of endangered species evaluations and mitigation and management plans for government and industry. He was responsible for preparation of the Trinity River Wildlife Management Options Study (Mitigation Planning) for the Bureau of Reclamation.

Dr. Harrington has worked with the Commission of the Californias in preparation of plans for rare flora and fauna in Baja California. Similarly, he has worked with the Secretaria de Desarrollo Urbano y Ecologia (SEDUE), the Universities of Chiapas and Colima, Earthwatch, and the Institute for World Conservation and Development in planning for endangered species in Tamaulipas (oak/sweetgum biotic community ecology); Siankaan Biosphere Reserve, Quintana Roo (coral reefs, estuaries, American crocodiles, rare avifauna, spider monkeys); Lagos de Montebello, Chiapas (quetzals and orchids); Maruatz, Michoacan (spawning sea turtles), Zitacuaro, Michoacan (wintering Monarch Butterflies) and other sites.

### PRIOR EXPERIENCE

Fred Harrington and Associates  
Consulting Biologist and CEO (9 years)

Dr. Harrington supervised a group of professional biologists and land use management specialists who offered a wide range of services including environmental services, land use planning, and biological studies. During this period he served as project manager and principal investigator on numerous major energy projects in the Northern Great Plains and Rocky Mountain region including the Garrison Coal Field, Powder River Basin, and elsewhere on behalf of the coal and uranium industries. Likewise, he has worked with federal agency programs in the completion of extensive wildlife and vegetation inventories for the Bureau of Land Management. He coordinated an abandoned mine land reclamation project under contract to Wyoming Department of Environmental Quality. Dr. Harrington and his colleagues were engaged by a large number of nonprofit conservation organizations including the Nature Conservancy, The Institute for World Conservation and Development, and the International Union for Conservation of Nature and Natural Resources. In recent years, Dr. Harrington devoted considerable time to investigations of the tropical rain forest degradation phenomenon throughout Latin America.

VTN Wyoming Incorporated  
Manager of Environmental Sciences (2 years)

For this multidisciplinary company, Dr. Harrington was responsible for program development, budget and finance, marketing, and quality control. Principal activities were associated with environmental impact assessments in the Powder River Basin and adjacent areas. Dr. Harrington served to coordinate the activities of biologists, sociologists, geologists, soil scientists, economists, archaeologists, and several engineering disciplines. He served as principal investigator on a variety of projects in the Northern Great Plains and Rocky Mountain region. He played a major role in the Bureau of Reclamation's Trinity River (California) Management Options Study. He conducted the first environmental feasibility study for coal pipelines in the region.

**Iran Department of the Environment**  
**Chief Advisor (7 years)**

Dr. Harrington was employed by the Iranian government (under the former Shah) to supervise and conduct environmental studies. Shortly thereafter he was given responsibility for preparation of the Iran National Report to the Stockholm International Conference on the Human Environment (UNEP, UNDP, UNESCO, 1971). As a result of the favorable response to the report by the conferees, he was asked to present plans for creation of the Iran Department of the Environment. Plans were approved by Parliament in 1972. He was authorized to recruit 44 foreign advisors in the field of environmental conservation to assist in developing the program. He subsequently guided the development of an organization with jurisdiction over environmental protection and pollution abatement, national parks and reserves, fisheries, wildlife, plant protection, and national museums. He supervised the first studies of oil pollution in the Persian Gulf, and proposed the first pollution abatement facilities at Iranian ports. He conducted the first studies of pesticides in the Caspian Sea, which led to a bilateral agreement on pesticide control and regulation between Iran and the Soviet Union. Dr. Harrington was innovator of "Pardisan," a nature park complex near Tehran, where he worked with such famous architects as Ian McHarg and R. Buckminster Fuller. The master plan won the annual award at the American Association of Landscape Architects in 1977.

**OTHER EXPERIENCE**

Dr. Harrington began his career as a biologist for New Mexico Game and Fish Department, working on a federal aid project "Investigations of Big Game and Ranges." He served 5 years as Flight Navigator in the U.S. Air Force, attaining the rank of Captain. During that period he was assigned to Military Airlift Command, and served as a combat aircrew member in Vietnam in aeromedical evacuation and transport squadrons. When he returned to graduate school, he was engaged by the National Park Service to study habitat preferences of large mammals in Rocky Mountain National Park. For his efforts he was granted the Hibbs Award for "Outstanding Contribution to Wildlife Management in the State of Colorado."

Revised 01/05

CORRES. CONTROL  
INCOMING LTR NO.

00142 RF05

DUE DATE  
ACTION



RECEIVED

2005 MAR 22 A 7:51 Department of Energy

U.S. DEPARTMENT OF ENERGY  
ROCKY FLATS PROJECT OFFICE  
10808 HIGHWAY 93, UNIT A  
GOLDEN, COLORADO 80403-8200  
MAR 17 2005

05-DOE-00119

DIST.	LTR	ENC
BERARDINI, J.H.	X	X
BOGNA, E.B.	X	X
BROOKS, L.	X	X
CARPENTER, M.	X	X
CHUO, J.A.		
CROCKETT, G.A.		
DECK, C.A.	X	X
DEGENHART, K.R.	X	X
DEL VECCHIO, D.		
DIETER, T.J.		
FERRERA, D.W.	X	X
GIACOMINI, J.J.		
GILPIN, H.		
LINDSAY, D.C.	X	X
LONG, J.W.		
MARTINEZ, L.A.	X	X
NAGEL, R.E.	X	X
NESTA, S.	X	X
NORTH, K.		
SHELTON, D.C.	X	X
SPEARS, M.B.	X	X
TUOR, N.R.	X	X
WIEMELT, K.	X	X
WILLIAMS, J.L.	X	X
ZAHM, G.	X	X

Mr. Steven H. Gunderson  
Rocky Flats Cleanup Agreement Project Coordinator  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530

Dear Mr. Gunderson:

Please find enclosed a completed Rocky Flats Cleanup Agreement Type 2 Building  
Disposition Closeout Report provided for your information for Building 705, a former  
ceramics and coating laboratory.

Questions may be directed to Gary Morgan, Rocky Flats Project Office, at (303) 966-6003.

Sincerely,

*Joseph A. Legare*  
Joseph A. Legare, Director  
RFPO Project Management

Enclosure

COR. CONTROL	X	X
ADMIN. RECORD	X	X
PATS		

Reviewed for Addressee  
Comes. Control RFP

3/22/05  
Date By

Ref. Ltr. #

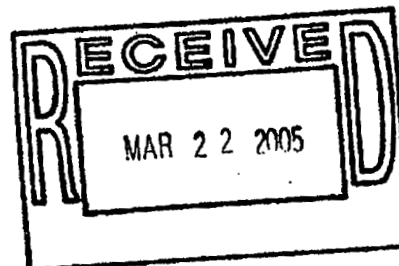
052F00146

DOE ORDER #

5400.1

cc w/o Encl.:  
S. Nesta, K-H RISS Env  
C. Freiboth, K-H RISS D&D  
K. Wiemelt, K-H RISS D&D  
M. Aguilar, USEPA  
D. Abelson, RFCLOG

cc w/Encl.:  
G. Morgan, RFPM, RFPO  
D. McCranie, HQCPM, RFPO  
Administrative Record



ADMIN RECORD

B707-A-000174



FEB 21 2005

05-RF-00146

Gary Morgan, Functional Lead  
Cadre Project Management Division  
DOE, RFPO

**TRANSMITTAL OF THE FINAL CLOSEOUT REPORT FOR BUILDING 705 – DWF-014-05**

Enclosed are four copies of the Final Closeout Report for the Type 2 Building 705.

The report is submitted to document completion of Deactivation and Decommissioning activities for Building 705. Transmittal to the Colorado Department of Health and Environment (CDPHE) and the Environmental Protection Agency (EPA), in accordance with the Rocky Flats Clean-Up Agreement (RFCA), is requested.

If you have any questions, please contact Steve Nesta at extension 6386.

*Dennis W. Ferrera*

Dennis W. Ferrera  
Vice President and Project Manager  
Remediation, Industrial D&D, and Site Services

SMN:pvt

Enclosure:  
As Stated

Orig. and 1 cc – Gary Morgan

cc:  
Joe Legare

Revision 0, 4/23/03

Reconnaissance Level Characterization Report, Building 705  
Rocky Flats Environmental Technology Site

Asbestos Data Summary

Sample Number	Survey Map Location Point	Room	Material Sampled & Location	Analytical Results
705-000003-315-101	1	101 I	White paint on Concrete Mortar Unit (CMU) wall, east	None Detected
705-000003-315-102	2	101 A	White paint on CMU, east wall	None Detected
705-000003-315-103	3	102	Yellow paint on CMU, south wall	None Detected
705-000003-315-104	4	104	White paint on CMU, north wall	None Detected
705-000003-315-105	5	105	White paint on CMU, north wall	None Detected
705-000003-315-106	6	106	Orange paint on CMU, east wall	None Detected
705-000003-315-107	7	106	Orange paint on CMU, north wall	3 % Chrysotile, 1.25 % Fiber Count
705-000003-315-108	8	101 D	Hard elbow on > 6" OD Conspicuous line, white friable TSI	8 % Chrysotile, 3 % Amosite, 3 % Crocidolite
705-000003-315-109	9	101 D	Hard elbow on > 6" OD Heating Water Supply line, white friable TSI	8 % Chrysotile, 3 % Amosite, 3 % Crocidolite
705-000003-315-110	10	101 D	Hard elbow on < 6" OD Domestic Cold Water line, white friable TSI	8 % Chrysotile, 3 % Amosite, 3 % Crocidolite
705-000003-315-111	11	101 F	Drywall, only	None Detected
705-000003-315-112	12	101 F	Joint compound, only	None Detected
705-000003-315-113	13	100	Joint compound, only	None Detected
705-000003-315-114	14	106	Hard elbow on < 6" OD Process Cold Water line, white friable TSI	None Detected
705-000003-315-115	15	100	Base coat with brown adhesive	None Detected

Disposal pool quality.

Pre-Demolition Survey Report, Building 705  
Rocky Flats Environmental Technology Site

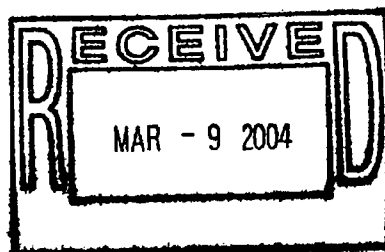
Beryllium Data Summary

Building 705 - RIN 04C0670				
705-07262004-00-002	2	100	Floor, random	<0.1
705-07262004-00-003	3	101	Floor, random	<0.1
705-07262004-00-010	10	103	Floor, random	<0.1
705-07262004-00-015	15	102	Floor, random	<0.1
705-07262004-00-016	16	101	Floor, random	<0.1
705-07262004-00-019	19	101	Floor, random	<0.1
705-07262004-00-020	20	106	Floor, random	<0.1
705-07262004-00-022	22	206	Floor, random	<0.1
705-07262004-00-023	23	100	Floor, random	<0.1
705-07262004-00-025	25	101	Floor, random	<0.1
705-07262004-00-026	26	101	Floor, random	<0.1
705-07262004-00-028	28	101	Floor, random	<0.1
705-07262004-00-029	29	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-121	121	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-122	122	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-123	123	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-124	124	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-125	125	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-126	126	101	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-127	127	102	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-128	128	102	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-129	129	102	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-130	130	102	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-131	131	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-136	136	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-139	139	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-140	140	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-141	141	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-142	142	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-143	143	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-144	144	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-145	145	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-146	146	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-147	147	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-148	148	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-149	149	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-150	150	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-152	152	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-153	153	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-154	154	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-155	155	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-157	157	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-158	158	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-159	159	100	Ceiling components (i.e. piping & joists), biased	<0.1
705-07262004-00-160	160	100	Ceiling components (i.e. piping & joists), biased	<0.1
RIN 0422372 - Post Wing down-Fire Fixative				
705-08052004-314-001	201	100	Floor, biased	<0.1
705-08052004-314-002	202	100	Floor, biased	<0.1
705-08052004-314-003	203	100	Floor, biased	<0.1
705-08052004-314-004	204	100	Floor, biased	<0.1
705-08052004-314-005	205	100	Floor, biased	<0.1
705-08052004-314-006	206	100	Floor, biased	<0.1
705-08052004-314-009	209	100	Floor, biased	<0.1
705-08052004-314-010	210	100	Floor, biased	<0.1
705-08052004-314-011	211	100	Floor, biased	<0.1
RIN 04C0705 - Post Fixative				
705-08112004-00-01	301	100	Floor, biased	<0.1
705-08112004-00-02	302	100	Floor, biased	<0.1
705-08112004-00-03	303	100	Floor, biased	<0.1
705-08112004-00-04	304	100	Floor, biased	<0.1
705-08112004-00-05	305	100A	Floor, biased	<0.1
705-08112004-00-06	306	100	Floor, biased	<0.1

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**DRAFT CLOSEOUT REPORT  
FOR IHSS GROUP 000-1  
SOLAR EVAPORATION PONDS  
AREA OF CONCERN**

**December 2002**



ADMIN RECORD

1101-A-000331

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## ENCLOSURE

Compact Disc – Analytical Data

**Appendix C**  
**Compact Disk, Data Set for IHSS Group 000-1 AOC**

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